

A SYNOPSIS AND NOMENCLATOR OF THE GENUS *PARATHESIS* (MYRSINACEAE)

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ABSTRACT

A new infrageneric classification for the genus *Parathesis* is proposed. The genus is divided into two subgenera, *Parathesis* subg. *Laterales* Ricketson & Pipoly, and subg. *Parathesis*. *Parathesis* subgenus *Laterales* is further divided into sections *Calophyllae* Ricketson & Pipoly, and *Laterales* Ricketson & Pipoly. *Parathesis* subg. *Parathesis* is also further divided into sections *Cubanae* Ricketson & Pipoly, *Parathesis*, and *Versatiles* Ricketson & Pipoly. All 95 species are listed in their respective sections.

RESUMEN

Se propone una nueva clasificación infragenérica para el género *Parathesis*. Se divide el género en dos subgéneros, *Parathesis* subg. *Laterales* Ricketson & Pipoly, y subg. *Parathesis*. Se divide el *Parathesis* subgénero *Laterales* en secciones: *Laterales* Ricketson & Pipoly, y *Calophyllae* Ricketson & Pipoly. Se divide *Parathesis* subg. *Parathesis* en secciones, *Cubanae* Ricketson & Pipoly, *Parathesis* y *Versatiles* Ricketson & Pipoly. Se enumeran todas las 95 especies del género en sus secciones respectivas.

INTRODUCTION

The genus *Parathesis* (A.DC.) Hook. f. was first described as a section of *Ardisia* Sw. by Alphonse de Candolle (1844) and included five species: *Ardisia cubana* A. DC. (*P. cubana* (A. DC.) Molinet & M. Gómez), *A. crenulata* Vent. (*P. crenulata* (Vent.) Hook. f. ex Hemsl.), *A. serrulata* Sw. (*P. serrulata* (Sw.) Mez), *A. lateriflora* Sw. (= *Stylogyne lateriflora* (Sw.) Mez) and *A. lepidota* Kunth. (= *Geissanthus lepidotus* (Kunth) Mez). *Parathesis* was elevated to the generic level by J.D. Hooker (1876).

In the first in-depth study of the genus, Carl Mez (1902) listed 20 species of *Parathesis*, including seven new species. However, it wasn't until C.L. Lundell (1966) published his monograph on the genus *Parathesis* that a usable classification was developed. Lundell listed 71 species divided into two "Sections" and 23 "Series". Admittedly Lundell stated (1966: p. 8) that his infrageneric classification was "designed to expedite the use of the general key," and therefore comprises a numerical listing rather than a formal classification.

Since Lundell's monograph was published, numerous species have been described, usually with no reference to Lundell's classification system. Currently, we recognize approximately 150 taxa of *Parathesis*, 95 at the rank of species. Although Lundell's system is helpful, it is far too large and cumbersome to

be useful. In preparation for our treatment of the genus *Parathesis* for *Flora Mesoamericana*, a new infrageneric classification system was needed, which is formalized herewith. The species listed reflect our current understanding of the genus. Complete synonymies will appear in the *Flora Mesoamericana* and *Flora Neotropica*.

TAXONOMIC TREATMENT

Parathesis (A. DC.) Hook. f. in Benth. & Hook. f., Gen. pl. 2:645. 1876. *Ardisia* sect. *Parathesis* A. DC., Prodr. 8:120. 1844. TYPE: *Parathesis serrulata* (Sw.) Mez.

Terrestrial polyaxial shrubs and trees. Young branchlets frequently ferruginous-tomentose with stellate or dendroid trichomes, often glabrescent. Leaves monomorphic, alternate, the blades usually pubescent on the lower surface, the trichomes stellate or dendroid, often appressed and bizonal, often early glabrescent, or glabrous, usually paler beneath; costa and primary lateral veins usually elevated beneath, smooth or impressed above; margins entire, crenulate, dentate or serrate; petioles marginate or canaliculate. Inflorescences terminal or lateral, paniculate and pyramidal, the branches umbellate, corymbose or subcorymbose-racemose; pedicels accrescent. Flowers bisexual, (4-or)-5 (or-6)-merous; calyx connate at the base, open in bud, usually glandular tomentulose and papillose; corolla rotate, valvate, usually narrowly lanceolate, white to pink, usually tomentulose outside, glandular papillose-tomentose inside at least along margins and apically, connate basally to form a tube; stamens included, inserted near the base of corolla tube, the filaments well developed, slender to stout, usually connate basally to form a tube, the bright yellow anthers erect or versatile, usually dorsifixed above base, dehiscent by introrse slits or apical pores, sagittate, lanceolate to ovate, acute, mucronate, apiculate or obtuse at the apex, dorsally punctate or epunctate; pistil obturbinate, the ovary ovoid or subglobose, the style long and slender, the stigma punctiform, ovules few to numerous, usually uniseriate, sometimes biseriate or rarely pluriseriate on the placenta. Fruits drupaceous, 1-seeded, usually depressed-globose, the endocarp crustaceous, the embryo cylindrical, transverse.

A genus of ca. 95 species ranging from northern Mexico to Panama, the Caribbean and throughout the Andes from Venezuela to Bolivia. Members of the genus occur from coastal mangroves to elfin forest formations at high elevations. The genus is diagnosed by the unique glandular papillae of the calyx and corolla lobes, and the bright yellow anthers.

KEY TO THE SUBGENERA AND SECTIONS OF *PARATHESIS*

1. Inflorescences lateral, or terminal and lateral _____ **Subg. Laterales**
2. Tomentum of branchlets and the undersurface of the leaves fine, mostly stellate and usually closely appressed, sometimes sub-appressed and rather loose, often glabrescent _____ **Sect. Laterales**

2. Tomentum of branchlets and undersurface of the leaves usually coarse and conspicuous and of distinct reddish trichomes, the trichomes dendroid and sessile or stipitate, or the trichomes stellate with erect and spreading rays, the stellate trichomes either sessile, subsessile, or stipitate _____ **Sect. Calophyllae**
1. Inflorescences terminal, pyramidal-paniculate _____ **Subg. Parathesis**
3. Anthers versatile, or tardily versatile, with longitudinal slits, dorsifixed at or about the middle; filaments usually longer than the anthers _____ **Sect. Versatiles**
3. Anthers erect, with longitudinal slits and/or subterminal pores, usually dorsifixed near the base, never versatile; filaments shorter than the anthers, often one-half as long.
4. Tomentum of branchlets and abaxial leaf surface fine, mostly sessile or subsessile stellate and usually closely appressed, sometimes sub-appressed and rather loose, often glabrescent _____ **Sect. Cubanae**
4. Tomentum of branchlets and undersurface of the leaves usually coarse and conspicuous and of distinct reddish trichomes, the trichomes dendroid, sessile or stipitate, or the trichomes sessile, subsessile or stipitate stellate with erect and spreading rays, usually persistent. _____ **Sect. Parathesis**

Parathesis (A. DC.) Hook. f. in Benth. & Hook. f. subg. **Laterales** Ricketson & Pipoly, subg. nov. TYPE (here designated): *Parathesis adenanthera* (Miq.) Hook. f. ex Mez.

Hoc subgenus a subgenere Parathese inflorescentiis lateralibus (axillaribus) vel terminalibus et lateralibus perfacile separabilis.

Inflorescences lateral (axillary), or terminal and lateral (axillary).

Parathesis subg. *Laterales* as circumscribed here consists of two sections (sect. *Calophyllae* and sect. *Laterales*) and includes 42 species.

Parathesis subg. **Laterales** Ricketson & Pipoly sect. **Calophyllae** Ricketson & Pipoly, sect. nov. TYPE: *Parathesis calophylla* Lundell.

Sectio haec a sectione Lateralibus tomento grosso conspicuo arque persistente statim distat.

Inflorescences axillary, or terminal and axillary; tomentum of branchlets and undersurface of the leaves usually coarse and conspicuous and of distinct reddish trichomes, the trichomes dendroid and sessile or stipitate, or the trichomes stellate with erect and spreading rays, the stellate trichomes either sessile, subsessile, or stipitate.

Parathesis subg. *Lateralis* sect. *Calophyllae* contains 9 species:

<i>Parathesis calophylla</i> Donn. Sm.	<i>P. reflexa</i> Brandegee
<i>P. oerstediana</i> Mez	<i>P. schultesii</i> Lundell
<i>P. pipolyana</i> Ricketson	<i>P. travisae</i> Lundell
<i>P. pleurobotryosa</i> Donn. Sm.	<i>P. vestita</i> Lundell
<i>P. pseudocalophylla</i> Ricketson & Pipoly	

Parathesis subg. **Laterales** Ricketson & Pipoly sect. **Laterales** Ricketson & Pipoly, sect. nov. TYPE: *Parathesis adenanthera* (Miq.) Hook. f. ex Mez.

Sectio haec sectionem Laterali inflorescentiis lateralibus vel lateralibus et terminalibus, tomentio subtiliter adpresso vel subadpresso atque plerumque glabrescentes statim distat.

Inflorescences lateral, or terminal and lateral; tomentum of branchlets and undersurface of leaves fine, mostly stellate and usually closely appressed, sometimes sub-appressed and rather loose, often glabrescent.

Parathesis subg. *Laterales* sect. *Laterales* contains 33 species:

<i>Parathesis adenanthera</i> (Miq.) Hook. f. ex Mez	<i>P. montana</i> Lundell
<i>P. angustifolia</i> Lundell	<i>P. moritziana</i> Mez
<i>P. aurantiaca</i> Lundell	<i>P. multiflora</i> Lundell
<i>P. calzadae</i> Lundell	<i>P. psychotrioides</i> Lundell
<i>P. candolleana</i> Mez	<i>P. rekoii</i> Standl.
<i>P. cinalapana</i> Lundell	<i>P. seibertii</i> Lundell
<i>P. conzattii</i> (S.F. Blake) Lundell	<i>P. skutchii</i> Lundell
<i>P. cuspidata</i> Lundell	<i>P. subulata</i> Lundell
<i>P. glaberrima</i> Lundell	<i>P. tartarea</i> Lundell
<i>P. glabra</i> Donn. Sm.	<i>P. tenuis</i> Standl.
<i>P. gracilis</i> Lundell	<i>P. tomentosa</i> Lundell
<i>P. leptopa</i> Lundell	<i>P. venezuelana</i> Mez
<i>P. macrantha</i> Lundell	<i>P. villosa</i> Lundell
<i>P. macronema</i> Bullock	<i>P. vulgata</i> Lundell
<i>P. melanosticta</i> (Schltdl.) Hemsl.	<i>P. wendtii</i> Lundell
<i>P. minutiflora</i> Lundell	<i>P. rekoii</i> Standl.
	<i>P. seibertii</i> Lundell

Parathesis (A. DC.) Hook. f. subg. **Parathesis**.

Inflorescences terminal, pyramidal-paniculate

Parathesis subg. *Parathesis* as circumscribed here consists of three sections (sect. *Cubanae*, sect. *Parathesis* and sect. *Versatiles*) and includes 53 species.

Parathesis subg. **Parathesis** sect. **Cubanae** Ricketson & Pipoly, sect. nov. TYPE:

Parathesis cubana (A. DC.) Molinet & M. Gómez.

Sectio haec quoad antheras erectas dorsifixas longitudinaliter vel subapicaliter dehiscentes necnon filamenta antheris breviora, sect. *Parathesi* valde affinis, sed ab ea foliis ramulisque subtiliter et adpresse- (nec grosse et erecte) tomentosus perclare distinguitur.

Inflorescence terminal, pyramidal-paniculate; anthers erect, with longitudinal slits and/or subterminal pores, usually dorsifixed near base, never versatile; filaments shorter than the anthers, usually one-half as long; tomentum of branchlets and undersurface of leaves fine, mostly stellate and usually closely appressed, sometimes subappressed and rather loose, often glabrescent.

Parathesis subg. *Parathesis* sect. *Cubanae* contains 26 species:

<i>Parathesis agostiniana</i> Lundell	<i>P. crenulata</i> (Vent.) Hook. f. ex Hemsl.
<i>P. bracteolata</i> Lundell	<i>P. cubana</i> (A. DC.) Molinet & M. Gómez
<i>P. breedlovei</i> Lundell	<i>P. donnellsmithii</i> Mez
<i>P. crassiramea</i> Lundell	<i>P. emarginata</i> Mez

P. ferruginea Lundell
P. lanceolata Brandege
P. laxa Lundell
P. lenticellata Lundell
P. mexicana Lundell
P. microcalyx Donn. Sm.
P. obtusa Lundell
P. parvissima Lundell
P. perpunctata Lundell

P. pseudocrassiramea Ricketson & Pipoly
P. reticulata Lundell
P. rosea Lundell
P. rothschuhiana Mez
P. sinuata (Lundell) Ricketson & Pipoly
P. subcoriacea Lundell
P. tetramera Bullock
P. williamsii Lundell
P. zuliana Lundell

Parathesis subg. **Parathesis** sect. **Parathesis**

Inflorescences terminal, pyramidal-paniculate; anthers erect, with longitudinal slits and/or subterminal pores, usually dorsifixed near base, never versatile; filaments shorter than anthers, usually one-half as long; tomentum of branchlets and undersurface of leaves usually coarse and conspicuous and of distinct reddish trichomes, the trichomes dendroid and sessile or stipitate, or the trichomes stellate with erect and spreading rays, the stellate trichomes either sessile, subsessile, or stipitate.

Parathesis subg. *Parathesis* sect. *Parathesis* contains 15 species:

Parathesis acostensis J.F. Morales
P. aeruginosa Standl.
P. amazonica Mez
P. chiapensis Fernald
P. columnaris Lundell
P. eggersiana Mez
P. fusca (Oerst.) Mez
P. kochii Lundell

P. neei Lundell
P. prionophylla Standl.
P. rufa Lundell
P. serrulata (Sw.) Mez
P. sessilifolia Donn. Sm.
P. tenorioi Lundell
P. villalobosii Lundell

Parathesis subg. **Parathesis** sect. **Versatiles** Ricketson & Pipoly, sect. nov. TYPE:

Parathesis trichogyne Hemsl.

Sectio haec inter alias antheris versatilis longitudinaliter deshiscentibus et dorsifixis, filamentis antheris longioribus statim diagnoscenda.

Inflorescences terminal, pyramidal-paniculate; anthers versatile, or tardily versatile, with longitudinal slits, dorsifixed at or about the middle; filaments usually longer than the anther.

Parathesis subg. *Parathesis* sect. *Versatiles* contains 12 species:

Parathesis acuminata Lundell
P. amplifolia Lundell
P. cartagoana Lundell
P. costaricensis Ricketson
P. croatii Lundell
P. glendae Ricketson

P. longipedicellata Ricketson
P. palaciosii Pipoly
P. panamensis Lundell
P. papillosa Lundell
P. pyramidalis Lundell
P. trichogyne Hemsl.

EXCLUDED TAXA

Parathesis acutissima Cuatrec. = *Hymenandra acutissima* (Cuatrec.) Pipoly & Ricketson

Parathesis micranthera Donn. Sm. = *Gentlea micranthera* (Donn. Sm.) Lundell

Parathesis viridis Lundell = *Stylogyne viridis* (Lundell) Ricketson & Pipoly

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